

**Commonwealth of Kentucky**  
**Division for Air Quality**  
***RESPONSE TO COMMENTS***

ON THE TITLE V DRAFT PERMIT V-03-008 R2

Trus Joist – A Weyerhaeuser Company  
610 Trus Joist Lane, Chavies, Kentucky, 41727

JULY 21, 2004

RALPH E. GOSNEY, REVIEWER

PLANT I.D. # 021-193-00097

APPLICATION LOG # 56024

**MAJOR PERMIT REVISION (REVISION 2):**

An application for a major revision to Permit V-03-008 R1 was received on February 20, 2004. The revision includes the replacement of (4) strand dryers with (2) new proposed strand dryers. Process modifications will also be made to make maximum use of the energy input to the system by recovering heat in the thermal oil heater exhaust gases by routing it through the (2) new proposed strand dryers.

The existing facility is a major source (greater than 100 tons of potential emissions) of carbon monoxide (CO), particulate matter (PM), nitrogen oxides (NO<sub>x</sub>), and volatile organic compounds (VOC). After the proposed modifications, the facility will also be a major source (greater than 25 ton of total potential emissions) of hazardous air pollutants (HAPs). The facility will be subject to the US EPA proposed national emission standards for hazardous air pollutants (NESHAP) for Plywood and Composite Wood Products (40 CFR 63 Subpart DDDD). The facility will also become subject to the US EPA NESHAP for Industrial, Commercial, and Institutional Boilers and Process Heaters (40 CFR Subpart DDDDD).

**SOURCE DESCRIPTION:**

The Title V operating permit, V-03-008, was issued on July 2, 2003. Prior to the Title V operating permit, the facility operated under permit numbers C-93-111 revision 2, S-96-256, S-97-033, and the most recent VS-02-008. The plant consumes more than 200,000 cords of “low grade” timber annually; in the manufacture of Laminated Strand Lumber (LSL), Timber Strand and Trus Joist wood I-joist. The LSL process includes whole logs (debarked), cut in length, and processed into thin, long strands. The strands are then dried, coated with polyurethane MDI resin, and formed into a rough billet. Lastly, the billet is pressed into a billet approximately 8-feet wide by 48-long and several inches thick using steam injection technology. The general processing runs through the log and strand preparation, heating/energy, blending-forming-press, and finishing areas, which is tied to the Trus Joist production department.

**PUBLIC AND U.S. EPA REVIEW:**

The air quality permit notice for the Draft Operating/Construction Title V/Synthetic Minor Permit for Trus Joist was placed in The Hazard Herald in Hazard, Kentucky on June 9, 2004. Comments on the Draft Operating/Construction Title V/Synthetic Minor permit were received on July 6, 2004 from Richard T. Weber, Area Regulatory Manager of Trus Joist. Responses to these comments are included in Attachment A.

# ATTACHMENT A

## Response to Comments on Draft Permit V-03-008 R2

An application for a major revision to the Title V/Synthetic Minor Permit, V-03-008 R2, for Trus Joist was received on February 20, 2004. A draft operating/construction Title V/Synthetic Minor permit V-03-008 R2 was prepared by the Division and the air quality permit notice was placed in The Hazard Herald in Hazard, Kentucky on June 9, 2004.

### Comments and Response

The following comments on the draft Operating/Construction Title V/Synthetic Minor permit V-03-008 R2 were received on July 6, 2004 from Richard T. Weber, Area Regulatory Manager of Trus Joist.

### General Comments

Weyerhaeuser believes that there is a misunderstanding regarding the applicability of 40 CFR 63 Subpart DDDDD (“Boiler MACT”) to the strand dryer exhaust, which is subject to 40 CFR 63 Subpart DDDD (Plywood and Composite Wood Products MACT – “PCWP MACT”). We continue to assert that our original interpretation is correct - the only time Boiler MACT applies is when the exhaust from the Wellons thermal oil heaters is not passing through the strand dryers. However, this misunderstanding is understandable, given the way the current rules are written. Weyerhaeuser has been in contact with EPA regarding this issue and they have acknowledged the problem in the rule.

EPA verified our understanding that the agency’s intent is to cover under the PCWP MACT the exhaust of any heat source when that exhaust provides direct-fired heat to a dryer, whether or not that heat source first is used to perform other heating applications. The Trus Joist operation fits this situation. EPA told us they also recognize that there is a problem with the PCWP rule language for affected source relative to the Boiler MACT exemption. EPA plans to fix these “disconnects” between the two rules as an amendment to the final rule, but not before the regulations are published in the Federal Register.

Once the rule is amended by EPA, Weyerhaeuser will request KY DEP to modify the permit as expeditiously as possible.

*Division’s response: General comment regarding the applicability of Subpart DDDDD (“Boiler Mact”) noted. As stated in the Statement of Basis, the Division believes although the wood-fired oil heaters are not defined as “process heaters” for directly supplying heat to the (2) new proposed strand dryers, the units will always be defined as “process heaters” because they indirectly heat the oil. Weyerhaeuser may request KY DEP to modify the permit, once the rule is amended, and the Division will evaluate the applicability of Subpart DDDDD at that time.*

Specific Comments

**Section B Emissions Unit 01**

Page 2 Description: Primary fuel

Change "wood waste" to "wood residuals." We do not want any confusion that this unit could be considered an industrial waste incinerator.

*Division's response: Comment noted, and the permit amended, as requested.*

Page 2 1.a.(1) The paragraph structure is confusing by containing a requirement, and an informational sentence. It would be clearer to drop the second sentence.

*Division's response: Comment noted, and the permit amended, as requested. The sentence has been added in the Statement of Basis.*

Page 2 1.a.(2) The operating limit expressed here should be made consistent with the compliance demonstration requirement on Page 4, last paragraph. Suggested wording is:

- (2) The Electrified Filter Bed (EFB) shall be operated and routine maintenance performed to insure that the ionizer amperage does not drop below the lower limit of the indicator range developed from continuous data collected during stack tests more than 5% of the time in a calendar quarter.

*Division's response: Comment noted, and the permit amended, as requested.*

Page 3 1.b.(2) The draft permit combines two separate requirements, the total selected metals alternative to the particulate emission limit, and the mercury limitation, into a single condition. These limits should be separated into two separate permit conditions. Suggested wording is:

- (2) If the permittee decides to comply with the alternative total selected metals emission limit, then the permittee must maintain the fuel type or fuel mixture such that the total selected metals emission rates calculated according to 40 CFR 63.7530(d)(4) is less than the applicable emission limits for mercury and/or total metals.
- (5) The permittee shall maintain the fuel type or fuel mixture such that the mercury emission rate calculated according to 40 CFR 63.7530(d)(5) is less than the applicable emission limit for mercury.

*Division's response: Comment noted, and the permit amended by splitting the requirement into (2) items, as requested.*

Page 4 2.a. The 4th paragraph that addresses emission averaging may be deleted. The facility does not have another solid fuel combustion boiler to average emissions with.

*Division's response: Comment noted, and the permit amended, as requested.*

Page 4 2.a. In the 5th paragraph the reference to 40 CFR 63.7520(c) is not correct. 40 CFR 63.7520(c) only applies to new sources. Delete (c) from the reference as all of 40 CFR 63.7520 may apply except for subpart (c).

The facility intends to demonstrate compliance with the HCl and mercury limitations through initial fuel testing. Thus, only items 1 or 2 in Table 5, none of Table 7, and only items 1 and 7 in Table 8 are applicable. Item 1b in Table 7 applies only to ESPs that are followed by a wet scrubber (Table 2, Item 3.b.). Item 1c in Table 7 applies only to mercury controls. Items 2a in Table 7 does not apply because the facility does not have a wet scrubber, and Item 2b does not apply because the facility does not have the capability of injecting an absorbent into the system.

The reference to 40 CFR 63.7521(d) is not correct. The reference should be to all of 40 CFR 63.7521.

The facility intends to demonstrate compliance with the HCl and mercury limitations through initial fuel testing. Thus, only Item 1 in Table 8 is applicable.

*Division's response: Comments noted. 40 CFR 63.7520(c) is for new units and is not applicable to Trus Joist. The reference to 40 CFR 63.7520(c) has been deleted from the permit, as requested. The reference to 40 CFR 63.7521(d) is correct. 40 CFR 63.7530(a) states "... according to 63.7521, paragraph (d) ...".*

Page 4 2.a. 6th paragraph. Correct typos. paragraph (10) of 40 CFR 63.7540 does not apply to existing sources. Only the applicable parts of 40 CFR 63.7540 applies.

Pursuant to 40 CFR 63.7540(a), the permittee must demonstrate continuous compliance with each emission limit, operating limit, and work practice standards in Tables 1 through 4 of 40 CFR 63 Subpart DDDDD that apply~~ies~~, according to the methods specified in Table 8 CFR 63 Subpart DDDDD and **the applicable** paragraphs **of** (a)(1) through **(109)** of 40 CFR 63.7540.

*Division's response: The Division agrees that 40 CFR 63.7540 does not apply because there is not a work practice standard for carbon monoxide for existing sources. The permit has been modified, as requested by the permittee.*

Page 4 2.a. Last paragraph. The methodology for establishing the indicator range is vague. We suggest that the following wording be added to the paragraph.

The indicator range will be the average of the 3 lowest 15 minute block average EFB ionizer amperages recorded during the compliance tests.

*Division's response: Comment noted, and the permit amended, as requested.*

Page 5 2.a. Replace PM<sub>10</sub> with PM in the equations to be consistent with the Subpart DDDDD PM emission limit.

*Division's response: The permit has not been modified, as requested. The PM<sub>10</sub> hourly emission rate will be correlated from stack tests and EFB amperage, and used as a factor for determining PM emission compliance. The use of the PM<sub>10</sub> hourly emission rate has been used as a factor for determining PM emission compliance, and approved in the past permits.*

Page 7 3.g. The permittee shall conduct at least one performance test for particulates within six months following the issuance of permit V-03-008. The indicator range shall be developed from the EFB data collected during the stack tests. The facility just completed PM emission testing in April 2004 and there is no reason for a repeat test until the construction is complete. This condition should be deleted.

*Division's response: Comment noted. The permit states testing within six months following the issuance of permit V-03-008, not permit V-03-008 R2. If testing was completed by January 2, 2004, then the testing requirement from the original permit V-03-008, has been fulfilled. Initial performance testing according to the requirements of Table 5 of 40 CFR Subpart DDDDD requirements are listed separately in the permit.*

Page 8 5.c. The permittee shall continuously record voltages, amperages, and pressure drops for the dry EFB.

Only amperage has an operating limit. The requirement to record voltages and pressure drops should be deleted.

*Division's response: The parameters of voltage, amperage, and pressure drop are indicators of the performance of the EFB. The record keeping of these parameters were in the existing Title V permit V-03-008 R1, and can be used to document proper performance of the EFB.*

Page 9 6.a. Table 7 does not apply. Replace the reference to Table 7 with Table 8, Item 7.

*Division's response: 40 CFR 63.7515(g) cites the same requirement as listed in the permit. The permit states "Pursuant to 40 CFR 63.7515(g), the permittee must report the results of performance tests and fuel analyses within 60 days after the completion of the performance tests or fuel analyses. This report should also verify that the operating limits for the affected source have not changed or provide documentation of revised operating parameters established according to 40 CFR 63.7530 and Table 7 to 40 CFR Subpart DDDDD, as applicable. The reports for all subsequent performance tests and fuel analyses should include all applicable information required in 40 CFR 63.7550." The reference to Table 7*

*will not be replaced with “Table 8”. That is not what the regulation states. The permit states “as applicable”, regarding Table 7.*

## Section B Emission Unit 02

Page 11 1.a.i) This requirement needs to clarify at what location the temperature limit is to be established. Suggested wording:

- i) maintain on a daily basis, the average **dryer** inlet temperature below the maximum inlet temperature established during the performance test according to 40 CFR 63.2262(n);

*Division’s response: Comment noted, and the permit amended, as requested.*

Page 13 2.c. This condition needs to be clarified to state which specific HAPs are included in the 0.18 lb/ODT emission limit.

The HAPs regulated **in 40 CFR 63.2240(a)–Subpart DDDD-include are** acetaldehyde, acrolein, formaldehyde, methanol, phenol, and propionaldehyde.

Appendix B lists other HAPs that are covered by risk analysis part of the rule.

*Division’s response: Comment noted, and the permit amended, as requested.*

Page 14 4.c. ....AND the permittee shall maintain the average **dryer** inlet temperature...Insert the word “dryer” before inlet to clarify this requirement.

*Division’s response: Comment noted, and the permit amended, as requested.*

Add to Permit: It does not appear that the permit has a provision that would limit the facility PM emissions to less than 250 tons/yr. This limitation should be added to the dryer emission unit provisions. Suggested wording:

### APPLICABLE REGULATIONS:

401 KAR 51:017 Prevention of Significant Deterioration of Air Quality (PSD).

#### 1. Operating limits:

- a. As requested by the permittee and in order to preclude the applicability of 401 KAR 51:017 Prevention of Significant Deterioration of Air Quality (PSD), the permittee has the following operating limits for this emission unit:

- (1) The PM emissions from the Electrified Filter Bed (EFB) shall be less than 0.41 lb/ODT production through the dryers, monthly average.

- (2) Production through the dryers shall be limited to 35 ODT/hr, monthly average

Compliance Demonstration Method: EPA Method 5 and Method 202.

*Division's response: The permit has been amended, as requested, except for the applicability of 401 KAR 51:017 and the compliance demonstration method. If operating limits are taken to preclude the applicability of 401 KAR 51:017, then it will not be listed as an applicable regulation in the permit. Compliance will be demonstrated by the existing testing conditions for the unit and the source-wide requirements in Section D of the permit.*

## **Section B Emission Units 22**

Page 22      The spray booth has been removed from the facility. Delete "Spray Booth" from the list of units.

*Division's response: Comment noted, and the permit amended, as requested.*

## **Section C Insignificant Activities**

Page 25      Logo ink jet, edge seal, and end seal application are regulated by CFR 63 subpart DDDD. Should they still be on the insignificant emissions list?

*Division's response: Comment noted. The definition of "affected source" in 40 CFR 63 Subpart DDDD includes most of the units at the facility, even though there are no specific requirements for them. The three new units suggested have been moved to Section B of the permit and 40 CFR 63 Subpart DDDD added as an applicable regulation and operating limitation for non-HAP coatings. The units are insignificant, other than the applicability to 40 CFR 63 Subpart DDDD.*

## **CREDIBLE EVIDENCE:**

This permit contains provisions which require that specific test methods, monitoring or recordkeeping be used as a demonstration of compliance with permit limits. On February 24, 1997, the U.S. EPA promulgated revisions to the following federal regulations: 40 CFR Part 51, Sec. 51.212; 40 CFR Part 52, Sec. 52.12; 40 CFR Part 52, Sec. 52.30; 40 CFR Part 60, Sec. 60.11 and 40 CFR Part 61, Sec. 61.12, that allow the use of credible evidence to establish compliance with applicable requirements. At the issuance of this permit, Kentucky has not incorporated these provisions in its air quality regulations.